



U.S. Department of Justice

Federal Bureau of Investigation

EX PARTE OR LATE FILED

CALEA Implementation Section
Suite 300
14800 Conference Center Drive

June 30, 1998

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M Street, N.W. - Room 222
Washington, D.C. 20554

EX PARTE SUBMISSION

Re: Written Ex Parte Submission

In the Matter Of: Communications Assistance for Law Enforcement Act
CC Docket No. 97-213

RECEIVED
JUN 30 1998
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Dear Ms. Salas:

On June 3, 1998, representatives of the Department of Justice and the Federal Bureau of Investigation ("the United States") met with representatives of the Federal Communications Commission. At the meeting, the United States discussed industry compliance efforts with the Communications Assistance for Law Enforcement Act. To clarify our discussions on June 3rd, and in response to a Commission staff request, the Federal Bureau of Investigation (FBI) is providing the enclosed written presentation regarding the status of several manufacturers that have indicated they may have full or partially compliant solutions available in the near term. The FBI has not evaluated these solutions and does not advocate any particular solution described in the enclosed presentation.

Pursuant to § 1.1206 of the Commission's Rules, 47 C.F.R. § 1.1206, enclosed please find an original and two copies of the Federal Bureau of Investigation's written presentation. Copies of this presentation are also being provided to the Commission representatives that attended the June 3, 1998 meeting.

Very truly yours,

H. Michael Warren
Senior Project Manager/Chief

cc: Susan Aaron, Jim Burtle, Diane Conley, Charles Iseman, Tim Maguire, Tejal Mehta, Kim Porter, Kelly Quinn, Rodney Small, David Wye

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**Response to Commission's Request Regarding
Availability of CALEA-Compliant Solutions**

This presentation provides information made available to the Federal Bureau of Investigation's (FBI) CALEA Implementation Section (CIS) by a number of telecommunications solution providers regarding CALEA solution availability.¹ Certain solution providers have indicated to CIS that they will have either full or partial CALEA solutions in the near term. Information in this supplemental filing is considered proprietary by the companies involved. CIS has obtained express consent from each company to provide this information to the FCC and further notified all companies involved that this information would be included in an *ex parte* filing.

This filing includes information that was made available to CIS by Nortel, Alcatel, Bell Emergis, GTE Electronic Systems Division, ADC NewNet, Comverse and Aqsacom. This presentation relies solely on industry-provided information. **CIS has made no attempt to provide independent analysis of industry-provided information or its possible impact on CALEA implementation for inclusion in this presentation.**

SWITCH-BASED SOLUTIONS

NORTEL

Nortel DMS-100 (wireline)

The DMS-100 family of switches is Nortel's leading high capacity central office switching application designed for end office use. The DMS-100 provides extensive residential and business services, ranging from basic telephone service to a full line of advanced voice and data services for residential and business markets. It is deployed extensively across the United States by a wide range of service providers.

Nortel claims all J-STD-025 and "punch list" capabilities are technically feasible on the DMS-100 family of switches with further development. In some instances, where requirements are technically difficult to implement, Nortel has identified alternative solutions that it believes meet the intent of the CALEA assistance capability requirements.

Nortel will release its CALEA solution for the DMS-100 in phases. It will take four distinct

¹ The term "solution providers" refers to traditional telecommunications equipment manufacturers, as well as other companies that are pursuing CALEA solutions.

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generic software releases to fully equip a DMS-100 switch with all the capabilities of J-STD-025 and the "punch list." The first three generic releases will include all surveillance capabilities excluding the "punch list." The first three generic software releases are expected in the fourth quarter of 1998, the second quarter of 1999, and the fourth quarter of 1999. The "punch list" capabilities will be made available in the second quarter of 2000.

CIS has been invited by Nortel to a demonstration of the next generic software release for its DMS-100 family of switches which will include some of CALEA's assistance capability requirements. The Nortel presentation is expected to take place in early July, 1998. Nortel will also be making the demonstration available to its carrier customers in the same time frame.

Nortel DMS-MSC (wireless - PCS)

The DMS-MSC is Nortel's primary PCS mobile switching center application. Its core switching functionality is based on the DMS-100 switching platform. Nortel will release its CALEA solution on the DMS-MSC in phases. It will take two distinct generic software releases to fully equip a DMS-MSC switch with those capabilities of J-STD-025 and the "punch list." The first generic software release could be in the fourth quarter of 1998 for the capabilities of J-STD-025. The "punch list" capabilities will be made available in a second product release that is expected to take place in the fourth quarter of 1999.

Nortel DMS-MTX (wireless - cellular)

The DMS-MTX is Nortel's primary mobile switching center application in the cellular market. Its core switching functionality is based on the DMS-100 switching platform. The first generic software release of a phased approach could be in the third quarter of 2000.

ALCATEL

Alcatel S12 (wireless - PCS)

Alcatel plans to make its CALEA solution available in three phases over the course of two years. The first phase, to be released in November, 1998, will include a small subset of CALEA features. The second phase, to be released in November, 1999, will include all the capabilities of J-STD-025 and some of the "punch list." The third and final phase, to be released in October 2000, will include the remaining "punch list" capabilities.

NETWORK-BASED SOLUTIONS

Network-based solutions provide CALEA capabilities to all switches in a carrier's network, regardless of the manufacturer or platform type of that switch, as long as the switch is connected to a relevant signaling network. Carriers choosing to employ a network-based solution must make only minor configuration changes to individual switches.

Bell Emergis

Bell Emergis, a Canadian firm, has indicated its proposed solution would operate in conjunction with the Signaling System 7 (SS7) network, which currently provides inter-switch call setup for approximately 92 percent of the access lines in the US. The Bell Emergis solution requires the use of peripheral equipment that acts in conjunction with the SS7 network, as well as facilities and hardware. Most wireline and some wireless networks use the SS7 network in providing inter-switch telecommunications service.

Bell Emergis states that all CALEA assistance capabilities can be met with its network-based solution. Bell Emergis has stated that it will be able to deploy its solution quickly once a carrier customer allows testing on its network and decides to purchase the system. Bell Emergis has indicated that it will be able to provide virtually all capabilities noted in J-STD-025 and the "punch list".

Bell Emergis has targeted deployment of their solution for calendar year 1998. Bell Emergis is currently planning to test their solution with Canadian law enforcement authorities during the Summer of 1998. FBI representatives will attend these planned tests. If testing is successful, Canadian authorities would consider deployment in Canada as soon as possible. It should be noted that the Canadian telecommunications infrastructure and the needs of Canadian law enforcement officials bear a striking resemblance to circumstances in the United States. (Effective testing in the U.S. depends upon a successful alliance and working relationship with at least one U.S. telecommunication service provider.)

In addition, Bell Emergis has provided the FCC with full information about its proposed solution during an *ex parte* meeting on June 10, 1998.

GTE Government Systems

The GTE Electronic Systems Division's (ESD) solution centers on a wireline and/or wireless network's signaling system rather than on the modification of all switches within a carrier's network. ESD has built a prototype system that currently operates on a live GTE wireline network. GTE is

also exploring their solution's viability for wireless network applications. Based on ESD's understanding of CALEA's required capabilities, ESD believes the solution can meet all of the J-STD-025 and "punch list" assistance capability requirements.

DELIVERY INTELLIGENT PERIPHERALS

Several companies providing intelligent delivery peripherals have provided CIS information regarding their respective solutions. A delivery intelligent peripheral-based CALEA solution is not a stand-alone solution, but rather one that receives information from within a switch and delivers the information to law enforcement. Each provider of a delivery intelligent peripheral-based solution will need to work in conjunction with switch manufacturers (whose equipment would provide access to information for law enforcement and forward it to the intelligent peripheral) to ensure CALEA-compliant functionality.

ADC NewNet, Inc.

ADC NewNet has developed a delivery intelligent peripheral solution which currently addresses wireless service providers, and may support the wireline networks at some future date. The ADC NewNet solution addresses the delivery function which receives information from a network element (switch) and delivers it to law enforcement. The ADC NewNet solution is dependent on switch manufacturers implementing software to access information and does not address the manner in which the individual switch or network will provide the accessed information to its solution hardware. This functionality was presented to the FCC in an *ex parte* meeting on June 24, 1998.

ADC NewNet has indicated to CIS that its CALEA solution will be available for testing in the summer of 1998. Additionally, ADC NewNet has targeted November 1998 as the time when its development and testing would be complete and its product available for deployment. It should be noted that ADC NewNet's proposed solution must work in conjunction with a switch. Therefore, the actual availability of a full CALEA solution is dependent upon switch manufacturers' development schedules. To date, ADC NewNet has forged a working relationship with at least one major switch manufacturer.

Comverse Technology, Inc.

Comverse has developed a delivery intelligent peripheral that receives call content and call-identifying information from a network element (switch) and delivers the information to law enforcement. Comverse also provides an administration system that a service provider can use to

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allow intercepts on various network elements. At this time Comverse products are deployed in service providers' networks in over forty countries. Their product is dependent on switch manufacturers implementing software to access information. Comverse has integrated their product with several major switching platform vendors such as Lucent, Nortel, Alcatel, Ericsson, Nokia, Motorola, Qualcomm, Siemens, and Fujitsu. Comverse stated that a solution could be operational in the United States within six months of an order being placed.

Aqsacom

Aqsacom, a French company, is a manufacturer of telecommunications products focused on law enforcement issues. It claims to have a delivery intelligent peripheral that receives call content and call-identifying information from a network element (switch) and delivers the information to law enforcement. Aqsacom claims to have their system deployed in several service providers' networks in Europe. Aqsacom's product is dependent on switch manufacturers implementing software on the switch to access information. Aqsacom claims to have integrated its product with several major switches in Europe, many of which are also deployed in the US. Aqsacom has indicated to CIS that it conducted an ex parte meeting with the FCC on June 22, 1998.

INTERNATIONAL INTERCEPT SOLUTIONS

International law enforcement was confronting the same technological barriers to effective electronic surveillance as law enforcement authorities in the United States. Even though legislative and regulatory requirements vary throughout the world, there is a striking similarity in all of law enforcement's requirements. CIS is aware that numerous solutions providing capabilities similar to those required by U. S. law enforcement are currently deployed in Europe. Those solutions have provided relief for many of the technological barriers in the European telecommunications markets. Some of the solutions have been provided by major switch manufacturers which also provide equipment in the U. S. Other solutions have been implemented internationally that meet a variety of law enforcement requirements.

CONCLUSION

The FBI would like to reiterate that, at this time, it has not made any evaluation of the information provided to it by the solution providers listed in this presentation. However, if the CALEA solutions described above have the capabilities characterized by the solution providers listed above and those solutions are available in the forecasted time frame, the pending request for an industry-wide two-year extension of the capability compliance date is plainly unjustified.